

Abstract

A microturbine engine operable to combust a flow of VOCs without a combustor. The microturbine engine comprising a compressor having an inlet, the inlet receiving a mixture of air and VOCs, the compressor operable to produce a
5 flow of compressed air and VOCs. The invention also includes a reaction chamber including a reactor bed. The flow of compressed air and VOCs is combusted within the reactor bed to produce a flow of products of combustion. The invention includes a turbine driven by the flow of products of combustion from the combustor and a generator coupled to the turbine. The generator is
10 driven by the turbine at a speed to produce electrical power.